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CARTER, LEDYARD & MILBURN

COUNSELLORS AT LAW

1350 I STREET, N. W.

SUITE 870

WASHINGTON, D. C. 20005

2 WALL STREET  
NEW YORK, N. Y. 10005  
(212) 732-3200

FEDERAL COMMUNICATIONS COMMISSION  
SEC. 101.101

114 WEST 47TH STREET  
NEW YORK, N. Y. 10036  
(212) 944-7711

(202) 898-1515

FAX: (202) 898-1521

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May 11, 1995

BY HAND

Mr. William F. Caton, Secretary  
Federal Communications Commission  
1919 M Street, N.W.  
Washington, D.C. 20554

Re: Petition for Reconsideration in  
CC Docket Nos. 92-115, 94-46 and 93-116

Dear Mr. Caton:

This is to provide notice, pursuant to Section 1.1206 of the Commission's Rules, that Carol A. Patton, President of C-Two Plus Technology ("C2+"), H. E. Cauthen, Jr., a C2+ consultant, and the undersigned, as counsel for C2+, met yesterday with Blair Levin, Chief of Staff to Chairman Reed Hundt.

The matters discussed were those contained in C2+'s Petition for Reconsideration and other submissions in the record along with the attached materials. An original and two copies of this notice and the attachment are being submitted.

If you have any questions regarding this matter, please contact me.

Very truly yours,



Timothy J. Fitzgibbon  
Counsel for  
C-Two Plus Technology

TJF:kdd  
cc: Blair Levin, Esquire

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF NEW YORK

CELLULAR TELEPHONE COMPANY, d/b/a  
CELLULAR ONE®

x

: 95 Civ. \_\_\_\_\_

Plaintiff,

: AFFIDAVIT

-against-

:

CELLULAR TWO, INC., TONY YANKOVSKY,  
CELLULAR EMULATION SYSTEMS, INC.,  
and ALAN J. GEDACHIAN,

:

:

Defendants.

:

x

STATE OF NEW JERSEY )

) ss.:

COUNTY OF BERGEN )

JOHN P. HART, JR., being duly sworn, states:

1. I am Vice President, Engineering of Cellular One®. I have been with Cellular One® for approximately three years, managing the Company's engineers and Network Operations personnel. I have worked in the telecommunications industry for nearly 25 years. Prior to joining Cellular One®, I worked for New York Telephone, AT&T and NYNEX Mobile. I am thoroughly familiar with the technical aspects of the cellular industry.

Electronic Serial Numbers and their "Emulation"

2. The electronic serial number ("ESN") of a cellular telephone is a 32-bit binary number that is factory installed in each individual phone. Each telephone has a unique ESN, just as each car has a unique Vehicle Identification Number. A phone's ESN is distinct from its

10-digit telephone number, which is assigned by the cellular carrier.

3. When a customer of Cellular One® or any other cellular carrier initiates or receives a call, his or her phone is identified to the cellular system by its ESN. By identifying the particular phone being used to the cellular system, the ESN enables the cellular carrier to authorize system usage and to bill the appropriate account for the call.

4. "Emulation" is the process whereby the ESN of a particular cellular telephone is altered to simulate the ESN installed in a different phone. The cellular system cannot distinguish between a phone emitting a particular ESN because that was the number factory-installed into the phone, and a phone emitting the same ESN because it has been emulated. As a result, emulation enables a person to make a call on one cellular telephone (the emulated phone) while charging the call to another phone (the phone originally assigned that ESN).

#### "Cloning" and "Extension" Phones

5. One species of emulation is known colloquially as "cloning." In this variety of emulation, thieves using sophisticated scanning equipment monitor a cellular call and determine the ESN of the transmitting phone. That ESN is then programmed into a different phone. Anyone using the altered phone will then be able to make calls that will be

interpreted by the system as originating from the phone that was "cloned." The bill for such calls will be sent to the customer whose ESN was misappropriated. When the fraud is discovered, the victim's bill is adjusted to remove the fraudulent charges and Cellular One® loses all revenue in connection with the unauthorized calls.

6. Each year, the cellular industry suffers massive losses as a result of this type of fraud. According to the Cellular Telephone Industry Association, losses from fraud totalled approximately \$500 million in the year 1994, or more than \$1.5 million each day. In the New York area alone, 1994 losses totalled approximately \$75 million.

7. In another species of emulation -- the one this case concerns -- a phone purchased by an existing Cellular One® customer is altered so that it emulates the ESN of the customer's original, authorized phone, for which he has an account. Emulators are able to achieve this result by (1) disassembling the original phone, (2) disengaging and removing the computer chip upon which the ESN is encoded, (3) placing the chip in an electronic device that manipulates the ESN by reprogramming the chip, (4) replacing the chip in the telephone, and (5) reassembling the phone. The result of the emulation is that the customer then has a second phone that is indistinguishable to the cellular system from the customer's pre-existing phone, enabling the customer to make calls from either phone on the

existing account. The customer obtains an "extension" phone for which he pays no access charge to Cellular One®.

The Harm to Cellular One® from Emulated "Extension" Phones

8. The injury inflicted by "cloning" is obvious. Cellular service is simply being stolen by thieves who make calls that will be billed erroneously to someone else's account. The injury caused by the creation of unauthorized "extension" phones with emulated ESNs is subtler but no less real.

Interference with Anti-Fraud Efforts

9. Cellular One® has a system in place that attempts to combat cloning. This system is able to detect when a "single" phone is being used at two or more locations at one time. Because it is obviously impossible to use one phone from two locations, the system is actually recognizing that multiple phones are emitting a single ESN.

10. Because emulated "extensions" used by legitimate Cellular One® customers, like phones cloned by thieves, emit the same ESN as another phone, it is impossible to distinguish between a phone that has been emulated at a customer's request and a phone that has been cloned without the customer's knowledge. Accordingly, the use of emulated "extension" phones significantly interferes with Cellular One®'s ability to take affirmative action against users of phones tracked by the anti-fraud system. In essence, the many unauthorized "extensions" in use act as

a smoke screen behind which the thieves can escape detection.

#### Interference with System Operation

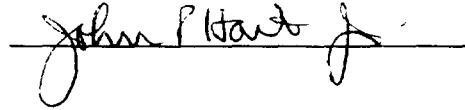
11. The use of emulated "extensions" also interferes with the proper operation of Cellular One®'s system. Because there is no way for Cellular One® to determine how many of its customers have had their phones emulated, it is not possible for Cellular One® to properly assess the level of expected system usage. Customers with emulated phones are likely to use the system more frequently than other customers, either because they will more often have a phone available to them or because the emulated phone is given to a second individual.

12. By preventing Cellular One® from accurately predicting system usage, ESN emulation interferes with Cellular One®'s ability to accurately predict the need to expand system capacity. Capacity is limited, and the drain on system resources leads a deterioration in service for all customers -- increased static, the inability to complete a call ("blocked" calls) and involuntary disconnections ("dropped" calls).

#### Revenue Loss

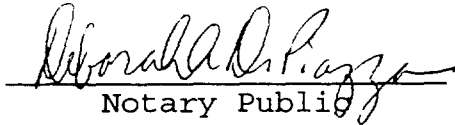
13. By enabling customers of Cellular One® to obtain a second cellular phone which is invisible to Cellular One®'s system, emulation allows customers to avoid paying the monthly access fee to which Cellular One® is

entitled under its tariff. Because it is impossible to determine how many emulated "extension" phones are in use on the Cellular One® system, it is impossible to determine just how much revenue the Company is losing.



John P. Hart, Jr.

Sworn to before me this  
25th day of April, 1995.

  
Notary Public

**DEBORAH A. DIPIAZZA**  
**A Notary Public of New Jersey**  
**My Commission Expires April 29, 1998**